Monthly test

Q. ID: ITISKILL68278M

February 2026 | **Govt ITI Beguru** | Answer Key

Duration: 30 Mins **Total Marks: 32** **Q.ID: ITISKILL68278M**

1. What is the effeciency transformer coupled class A amplifier?

A) More than 60% B) About 50%
C) Unity D) Less than 20%

Answer: B) About 50%

2. What will happen when the forward bias voltage across the PN junction is increased excessively?

A) Barrier width of junction increases B) Increases the cut - in - voltage
C) Junction ruptured and short circuited D) No current flows through the junction

Answer: C) Junction ruptured and short circuited

3. What in the current gain of a common ? base amplifier?

A) Less than 1 B) Infinity
C) Greater than 1 D) Unity

Answer: A) Less than 1

4. Which type of amplifier in used to operate the loud speaker?

A) Power amplifier B) IF amplifier
C) RF amplifier D) Voltage amplifier

Answer: A) Power amplifier

5. What is the advantage of using bias in transistor circuits?

A) Provides positive feed back B) Easily sets saturated
C) Never reach saturation D) Gives maximum distortion

Answer: C) Never reach saturation

6. How does the values of bias resistors selected for collector current in class -B amplifiers?

A) Quiescent current at mid point B) Quiescent current beyond the cut-off point
C) Q point set slightly below cut-off D) Quiescent current over the cut-off value

Answer: D) Quiescent current over the cut-off value

7. How the maximum permissible voltage that can be applied across the collector ? Emitter junction of a transistor is indicated?

A) VCE (max) in volts B) VCB (max) in volts
C) VBE (max) in volts D) VCC in volts

Answer: A) VCE (max) in volts

8. What is the purpose of using positive feed back in amplifiers?

A) To produce modulation B) To produce oscillation
C) To produce demodulation D) To produce multiplexion

Answer: B) To produce oscillation

9. Which type of amplifier is used to operate the loud speaker?

A) IF Amplifier B) Power Amplifier
C) RF Amplifier D) Voltage Amplifier

Answer: B) Power Amplifier

10. What type of packaging is generally used to transistors utilized for low power amplification?

A) Plastic packaging B) Plastic packaging with metal heatsinks
C) Metal packaging D) Ceramic packaging

Answer: A) Plastic packaging

11. Which type of transistors are required to amplify signals from the microphone /transducer?

A) High power transistors B) Low power transistors
C) Medium power transistors D) Epitaxial versa watt transistors

Answer: B) Low power transistors

12. Which coding system for transistor type numbering system is followed by American standard?

A) JIS standard B) Home codes
C) PRO-ELECTRON standard D) JEDEC standard

Answer: D) JEDEC standard

13. Which configuration of transistor amplifier is most commonly used in electronic circuits?

A) Common emitter configuration B) Common base configuration
C) Common collector configuration D) Common drain amplifier configuration

Answer: A) Common emitter configuration

14. In which quantity affects the Q point of a transistor amplifier?

A) Proper biasing methods B) Mismatching signals
C) Increased temperature D) Decreased temperature

Answer: C) Increased temperature

15. How the negative feedback is called?

A) Regenerative feedback
B) Voltage controlled feedback
C) Degenerative feedback
D) Current controlled feedback

Answer: C) Degenerative feedback

16. What is the voltage gain in a transistor if the input voltage in 40mv and the output voltage in 3.6V?

A) 45
B) 270
C) 180
D) 90

Answer: D) 90

17. Why the complementary - symmetry amplifier is preferred over the other types of amplifier configurations?

A) To minimize the gain
B) To get less distortion
C) To eleminate the transformer
D) To get more voltage gain

Answer: C) To eleminate the transformer

18. What is the maximum emitter to base voltage VEB (max) for the transistor BC 147?

A) 4V
B) 8V
C) 6V
D) 5V

Answer: C) 6V

19. Why NPN type of transistors are preferred over the PNP type transistors?

A) NPN has good bias stability
B) Low operating voltage
C) NPN has lower switching speed
D) NPN has higher switching speed

Answer: D) NPN has higher switching speed

20. Where does the depletion region exists in a bipolar transistor?

A) Between emitter - base electrodes
B) Between collector and emitter electrodes
C) Between collector - base electrodes
D) Between E-B and B-C electrodes

Answer: D) Between E-B and B-C electrodes

21. What is the overall base emitter voltage required to turn the darlington pair?

A) 0.2 V
B) 0.7 V
C) 1.4 V
D) 0.3 V

Answer: C) 1.4 V

22. Which type of packaging is used to transistors utilized for medium power amplification?

A) Plastic packaging with metal heatsinks
B) Plastic packaging
C) Ceramic packaging
D) Metal packaging

Answer: A) Plastic packaging with metal heatsinks

23. Why transistors made of silicon is preferred over the germanium semiconductor material?

A) Requires complicated bias arrangement
B) Silicon transistor needs low cut-in-voltage
C) Higher thermal stability
D) Complex design

Answer: C) Higher thermal stability

24. What is the advantage of silicon over germanium for transistor fabrication?

A) Higher amplification factor
B) Lower thermal stability
C) Lower operating voltage
D) Higher thermal stability

Answer: D) Higher thermal stability

25. How can you confirm a transistor as defective?

A) By voltage measurements
B) By ohm meter testing
C) By physical testing
D) By circuit testing

Answer: B) By ohm meter testing

26. What is the meaning of first letter indicated in the transistor code number BC 107?

A) Indium material used
B) Antimony material used
C) Germanium material used
D) Silicon material used

Answer: D) Silicon material used

27. What is the current gain of common collector amplifier?

A) High
B) Low
C) Very high
D) Medium

Answer: C) Very high

28. What is the formula used to calculate the current gain (alpha) of common base amplifier?

A) IE/ IC
B) IE/ IC
C) IB/ IE
D) IC/ IE

Answer: D) IC/ IE

29. Which parameter of passive component can be calculated using the formula ?

A) Capacitive reactance
B) Capacitance
C) Inductive reactance
D) Inductance

Answer: A) Capacitive reactance

30. Which class of amplifier uses fixed bias because of its imperent advantage of transistor will never go to saturation?

A) Class - C
B) Class - AB
C) Class - A
D) Class - B

Answer: C) Class - A

31. What is the input impedence of darlington pair transistors?

A) Medium input impedance

B) Very high input impedance

C) Uniter

D) Very low input impedance

Answer: B) Very high input impedance

32. What is the name of multi-stage amplifiers?

A) Cascoded amplifier

B) Complementry symmetry amplifier

C) Darlington pair amplifier

D) Cascaded amplifier

Answer: D) Cascaded amplifier